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10/039,239	01/04/2002	Edward Balassanian	294518009US2	8182

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EXAMINER	
GORDON, CARLENE MICHELLE	
ART UNIT	**PAPER NUMBER**
2124	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,239	BALASSANIAN, EDWARD	
	Examiner	Art Unit	
	Carlene Gordon	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 January 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the application filed on January 04, 2002.

Claims 1-17 are pending in the application.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are informal and difficult to read. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because the Brief summary of the invention is missing.

See MPEP § 608.01(d). Appropriate correction is required.

4. The disclosure is objected to because of missing patent or patent application numbers from the section *Cross-Reference to Related Applications.*

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-11, 13-15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srivastava (USPN 5,999,737), hereafter "**Srivastava**", and Ono (USPN 5,084,813), hereafter "**Ono**", and in further view of Megiddo et al. (USPN 6,658,642), hereafter "**Megiddo**".

7. As to claim 1:

Srivastava discloses receiving base code from a developer (Abstract "program written... source code" – The source code interpreted as base code received from a developer.);

translating the received base code into an intermediate code (Abstract "source code... compiled into an object code... and translated into a single linked code module");

transforming the selected intermediate code to target code (Abstract "linked code is converted into machine executable code compatible with a target...").

Srivastava does not explicitly disclose the developer-specified characteristics are also provided; or receiving a request for target code from a requester, the request including requester-specified characteristics that the target code should satisfy; or selecting intermediate code that matches the requester-specified characteristics; or the target code in accordance with the requester-specified characteristics; or sending the target code to the requester.

However, Ono discloses the developer code received is supplemented with developer-specified characteristics (col. 2 lines 37-52 "software part suited to the specification is retrieved"; col. 4 lines 21-28 "software part... Include... a program pattern representing a basic means for realizing a predetermined function...", - Interpreted as developer-specified characteristics used for determining col. 4 lines 58-60 "a program to be formed to satisfy the specification".);

receiving a request for target code from a requester (col. 4 lines 29-39 "a function requested by a target system"), the request including requester-specified characteristics that the target code should satisfy (col. 2 lines 37-48 "system specification of a target system input");

selecting intermediate code that matches the requester-specified characteristics (col. 2 lines 37-48 "software part suited to specification is retrieved");

the target code transformed in accordance with the requester-specified characteristics (col. 2 lines 44-52 "software part is... converted in accordance with..."); and

sending the target code to the requester (col. 1 lines 9-13 "synthesizing a program suitable for a target system" – It is inherent the target code is sent to requestor.).

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava and Ono for developing code for a specified target architecture. The motivation would have been to include the method of Ono that utilizes specifications of the developer and requestor for producing the most suitable code for the requestor, as suggested by Ono "to make the requested function coincide with software parts as close as possible" in col. 2 lines 23-26.

Srivastava or Ono do not explicitly disclose evaluating the intermediate code to determine whether the received base code satisfies the developer-specified characteristics; or notifying the developer whether the received base code satisfies the developer-specified characteristics.

However, Megiddo discloses code evaluated to determine whether the received code satisfies the developer-specified characteristics (col. 5 lines 39-43 "tests the software package against... developer specifications.") and notifying the developer whether the received base code satisfies the developer-specified characteristics (col. 5 lines 20-27 "uncovered by testing", "developers... encouraged to correct any marginalities").

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava, Ono, and Megiddo for

developing code. The motivation would have been to include the steps of Megiddo that involve evaluating the intermediate code of Srivastava to determine if it meets developer-specified characteristics of Ono and notifying the developer if the code satisfies the characteristics in order to allow the developer to make appropriate corrections to acquire the best code as suggested by Megiddo in col. 5 lines 12-28 "best candidate is selected", that meets the requirements of the requester of Ono for the target architecture of Srivastava.

8. As to claim 2:

The rejection of claim 1 is incorporated and further Srivastava discloses wherein the base code is source code and the target code is executable code (Abstract "source code", "executable code... target... architectures").

9. As to claim 3:

The rejection of claim 1 is incorporated and further Srivastava does not explicitly disclose evaluating includes determining whether the developer is authorized to submit base code.

However, Megiddo discloses wherein the evaluating includes determining whether the developer is authorized to submit base code (Abstract "Software developers intending to participate may provide an intention to submit"; col. 5 lines 30-33 "submission developers... preauthorized" –Interpreted as developers being authorized to submit base code as code is selected.).

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava, Ono, and Megiddo for developing code. The motivation would have been to include the step of Megiddo for preauthorizing the developers for software submission because this facilitates in a method for paying the developers for their submissions as the payments provide incentive to submit code as taught by Megiddo (in col. 5 lines 30-35 "payment as additional incentive").

10. As to claim 4:

The rejection of claim 1 is incorporated and further Ono discloses wherein the developer-specified characteristics identify a functional category for the code (col.2 lines 53-61 "satisfies the simplified function").

11. As to claim 5:

The rejection of claim 4 is incorporated and further Ono discloses wherein the functional categories include networking, communications, client-server, user interface, Internet browsing, electronic mail, audio, video, telephony, television, compression, encryption, logging, feature manager, hardware interface, or miscellaneous (col.2 lines 53-61 "satisfies the simplified function").

12. As to claim 6:

The rejection of claim 1 is incorporated and further Ono discloses wherein the transforming includes optimizing the intermediate code in accordance with the requester-specified characteristics (col. 2 lines 64-68 "program... customizing or changing the program... satisfies the system specification").

13. As to claim 7:

The rejection of claim 1 is incorporated and further Srivastava discloses the transforming includes compiling the intermediate code to produce executable target code (Abstract "source code... compiled into an object code... and translated into a single linked code module").

Srivastava does not explicitly disclose the target code produced in accordance with the requester-specified characteristics, although disclosing the target code produced to suit a target architecture among plural target architectures (Abstract); therefore, Srivastava discloses the target code produced in accordance with specified characteristics, not specifically requestor-specified characteristics.

However, Ono discloses the target code produced in accordance with the requester-specified characteristics (col. 4 lines 29-39 "a function requested by a target system"; col. 2 lines 37-48 "system specification of a target system input"; col. 2 lines 44-52 "software part is... converted in accordance with...").

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava and Ono for developing code for a specific target architecture. The motivation would have been to

include the method of Ono that utilizes specifications of the developer and requestor for producing the most suitable code for the requestor, as suggested by Ono "to make the requested function coincide with software parts as close as possible" in col. 2 lines 23-26.

14. As to claim 8:

The rejection of claim 1 is incorporated and further Srivastava does not explicitly disclose billing for providing the target code to the requester. However, Srivastava in view of Ono does disclose providing the target code to the requester (see claim 1).

Furthermore Megiddo discloses billing for providing code (Abstract "payment... to the developer"; col. 5 lines 30-35 "programmers are paid").

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods Srivastava, Ono, and Megiddo for developing code. The motivation would have been to include Megiddo's method of billing involving paying the developers of code that are selected because this gives the developers and incentive (as taught by Megiddo col. 5 lines 30-35 "incentive") to develop the code of Srivastava using the method of Ono.

15. As to claim 9:

The rejection of claim 8 is incorporated and further Srivastava discloses target code that is based on base code provided by the developer (see claim 1).

Srivastava does not explicitly disclose wherein the billing includes compensating the developer for the code.

Megiddo further discloses billing including compensating the developer for the code (Abstract "payment... to the developer"; col. 5 lines 30-35 "programmers are paid").

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods Srivastava, Ono, and Megiddo for developing code. The motivation would have been to include Megiddo's method of billing involving paying the developers of code that are selected because this gives the developers an incentive (as taught by Megiddo col. 5 lines 30-35 "incentive") to develop the code of Srivastava using the method of Ono.

16. As to claim 10:

The rejection of claim 8 is incorporated and further Megiddo discloses wherein the billing is based on per use receiving of target code by a requester (Abstract "payment is transferred to developer of the selected module" – Interpreted as billing based on per use (selected) receiving of target code by a requester).

17. As to claim 11:

The rejection of claim 8 is incorporated and further Megiddo discloses wherein the billing includes differential billing based on the requester-specified characteristics

(Abstract "Module requirements include... module specifications, a corresponding price...").

18. As to claim 13:

Srivastava discloses receiving base code from a developer (Abstract "program written... source code" – The source code interpreted as base code received from a developer.); and

target code that derives from the received base code (Abstract "source code... compiled into an object code... and translated into a single linked code module"; Abstract "linked code is converted into machine executable code compatible with a target...").

Srivastava does not explicitly disclose the developer-specified characteristics are also provided.

However, Ono discloses the developer code received is supplemented with developer-specified characteristics (col. 2 lines 37-52 "software part suited to the specification is retrieved"; col. 4 lines 21-28 "software part... Include... a program pattern representing a basic means for realizing a predetermined function...", - Interpreted as developer-specified characteristics used for determining col. 4 lines 58-60 "a program to be formed to satisfy the specification".).

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava and Ono for developing code for a specified target architecture. The motivation would have been to

include the method of Ono that utilizes specifications of the developer and requestor for producing the most suitable code for the requestor, as suggested by Ono "to make the requested function coincide with software parts as close as possible" in col. 2 lines 23-26.

Also, Srivastava or Ono do not explicitly disclose evaluating the base code to determine whether it satisfies the developer-specified characteristics or notifying the developer whether the received base code satisfies the developer-specified characteristics, or compensating the developer when target code is distributed to a requestor.

However, Megiddo discloses code evaluated to determine whether the received code satisfies the developer-specified characteristics (col. 5 lines 39-43 "tests the software package against... developer specifications.") and notifying the developer whether the received base code satisfies the developer-specified characteristics (col. 5 lines 20-27 "uncovered by testing", "developers... encouraged to correct any marginalities"); and compensating the developer when target code is distributed to a requestor (Abstract "payment... to the developer"; col. 5 lines 30-35 "programmers are paid").

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods Srivastava, Ono, and Megiddo for developing code. The motivation would have been to include the steps of Megiddo that involve evaluating the base code of Srivastava to determine if it meets developer-specified characteristics of Ono and notifying the developer if the code satisfies the

characteristics in order to allow the developer to make appropriate corrections to acquire the best code as suggested by Megiddo in col. 5 lines 12-28 "best candidate is selected", that meets the requirements of the requester of Ono for the target architecture of Srivastava; also this gives the developers an incentive (as taught by Megiddo col. 5 lines 30-35 "incentive") to develop the code of Srivastava using the method of Ono.

19. As to claim 14:

The rejection of claim 13 is incorporated and further Srivastava does not explicitly disclose receiving a request for target code from a requester, the request including requester-specified characteristics that the target code should satisfy; or selecting intermediate code that matches the requester-specified characteristics; or the target code in accordance with the requester-specified characteristics; and sending the target code to the requester.

However, Ono discloses receiving a request for target code from a requester (col. 4 lines 29-39 "a function requested by a target system"), the request including requester-specified characteristics that the target code should satisfy (col. 2 lines 37-48 "system specification of a target system input");

selecting intermediate code that matches the requester-specified characteristics (col. 2 lines 37-48 "software part suited to specification is retrieved");

the target code transformed in accordance with the requester-specified characteristics (col. 2 lines 44-52 "software part is... converted in accordance with..."); and

sending the target code to the requester (col. 1 lines 9-13 "synthesizing a program suitable for a target system" – It is inherent the target code is sent to requestor.).

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava and Ono for developing code for a specified target architecture. The motivation would have been to include the method of Ono that utilizes specifications of the developer and requestor for producing the most suitable code for the requestor, as suggested by Ono "to make the requested function coincide with software parts as close as possible" in col. 2 lines 23-26.

20. As to claim 15:

Srivastava discloses providing a collection intermediate code (Abstract "source code... compiled into an object code... and translated into a single linked code module" – This linked module interpreted as composing the collection of translated source code modules (intermediate code).);

transforming the selected intermediate code to target code (Abstract "linked code is converted into machine executable code compatible with a target...").

Srivastava does not explicitly disclose receiving a request for target code from a requester, the request including requester-specified characteristics that the target code should satisfy; or selecting intermediate code that matches the requester-specified characteristics, or the target code transformed in accordance with the requester-specified characteristics, or sending the target code to the requester.

However, Ono discloses receiving a request for target code from a requester (col. 4 lines 29-39 "a function requested by a target system"), the request including requester-specified characteristics that the target code should satisfy (col. 2 lines 37-48 "system specification of a target system input");

selecting intermediate code that matches the requester-specified characteristics (col. 2 lines 37-48 "software part suited to specification is retrieved");

the target code transformed in accordance with the requester-specified characteristics (col. 2 lines 44-52 "software part is... converted in accordance with..."); and

sending the target code to the requester (col. 1 lines 9-13 "synthesizing a program suitable for a target system" – It is inherent the target code is sent to requestor.).

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous methods of Srivastava and Ono for developing code for a specified target architecture. The motivation would have been to include the method of Ono that utilizes specifications of the developer and requester for producing the most suitable code for the requester, as suggested by Ono "to make the

requested function coincide with software parts as close as possible" in col. 2 lines 23-26.

21. As to claim 17:

The rejection of claim 15 is incorporated and further Srivastava discloses wherein the selecting is based on processor speed requirements, processor type, or memory requirements (Abstract "executable code compatible with a target one of a plurality of... architectures"; col. 3 lines 48-50 "variety of architectures...", "memory").

22. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Srivastava, Ono, and Megiddo as applied to claim 1 above, and further in view of Atkin et al. (USPN 6,492,995), hereafter "**Atkin**".

23. As to claim 12:

The rejection of claim 1 is incorporated and further Srivastava discloses the transforming of the intermediate code (see claim 1) using beads of an operating system.

Srivastava does not explicitly disclose the operating system is a Strings-based operating environment.

Furthermore, Atkins discloses the use of a strings-based operating system (col. 4 lines 1-9 "pre-defined operating system string").

At the time of the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use the Strings-based operating

environment of Atkins as the environment for implementing the methods of Srivastava, Ono, and Megiddo because one of ordinary skill in the art would have expected Applicant's invention to perform equally well with the environment of Srivastava, Ono, or Megiddo.

24. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Srivastava, Ono, and Megiddo as applied to claim 15 above, and further in view of Nagel et al. (USPN 6,725,454), hereafter "**Nagel**".

25. As to claim 16:

The rejection of claim 15 is incorporated and further Srivastava, Ono, or Megiddo do not explicitly disclose wherein the selecting uses a least-squares analysis based various characteristics of the intermediate code. Ono does discloses a method for selecting code that matches requestor-specified characteristics.

However, Nagel discloses analyzing using a least-squares analysis (col. 2 lines 38-54 "least squares fit").

At the time of the applicant's invention, one of ordinary skill in the art would have been motivated to combine the analogous method of comparing programs of Srivastava, Ono, Megiddo, and Nagel in order to include a method of selecting intermediate code utilizing a least-square analysis technique of Nagel that matches the requestor-specified characteristics as taught by Ono (see claim 15). The motivation would have been to include a means that can analyze the requester-specified

characteristics of Ono to select the intermediate code that matches such characteristics, and the least-squares analysis provides that advantage as taught by Nagel (in col. 2 lines 47-50 "data analyzed using a least squares...").

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shimada (USPN 6,697,965).

Fraser et al. (USPN 6,748,588).

Gordon et al. (USPN 6,560,774).

Koizumi et al. (US Patent Pub. No. 2002/0026633).

Martin (USPN 5,937,192).

Srivastava (USPN 6,609,248).

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlene Gordon whose telephone number is (571) 272-3722. The examiner can normally be reached on Mon.-Fri. 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.G. 10.13.

ANIL KHATRI
PRIMARY EXAMINER